

# UbuntuNet Alliance

[www.ubuntunet.net](http://www.ubuntunet.net)

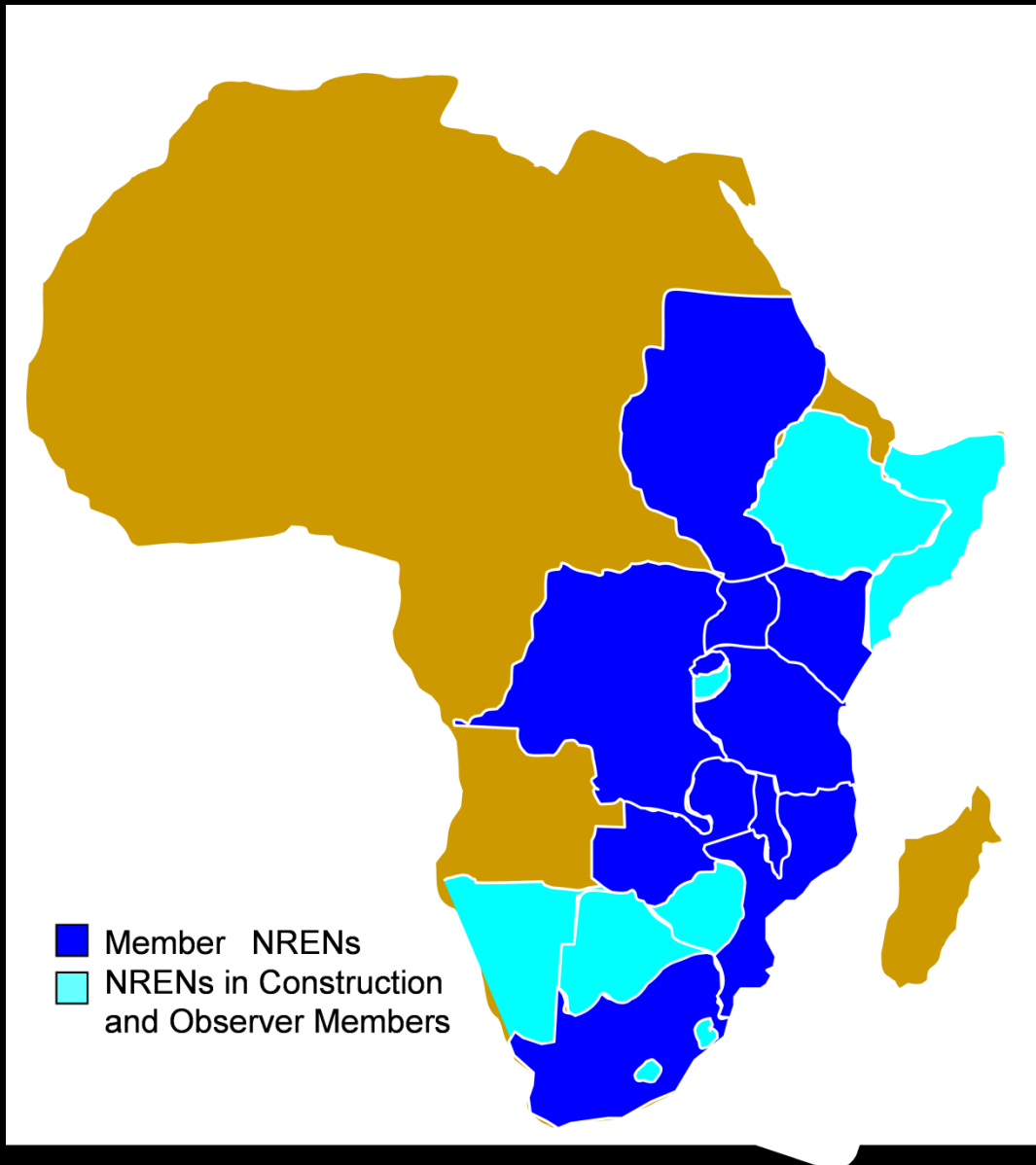
## Creating the Future of Research and Education Networking in Africa

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ASSOCIATION OF AFRICAN UNIVERSITIES  
ASSOCIATION DES UNIVERSITÉS AFRICAINES  
اتحاد الجامعات الأفريقية

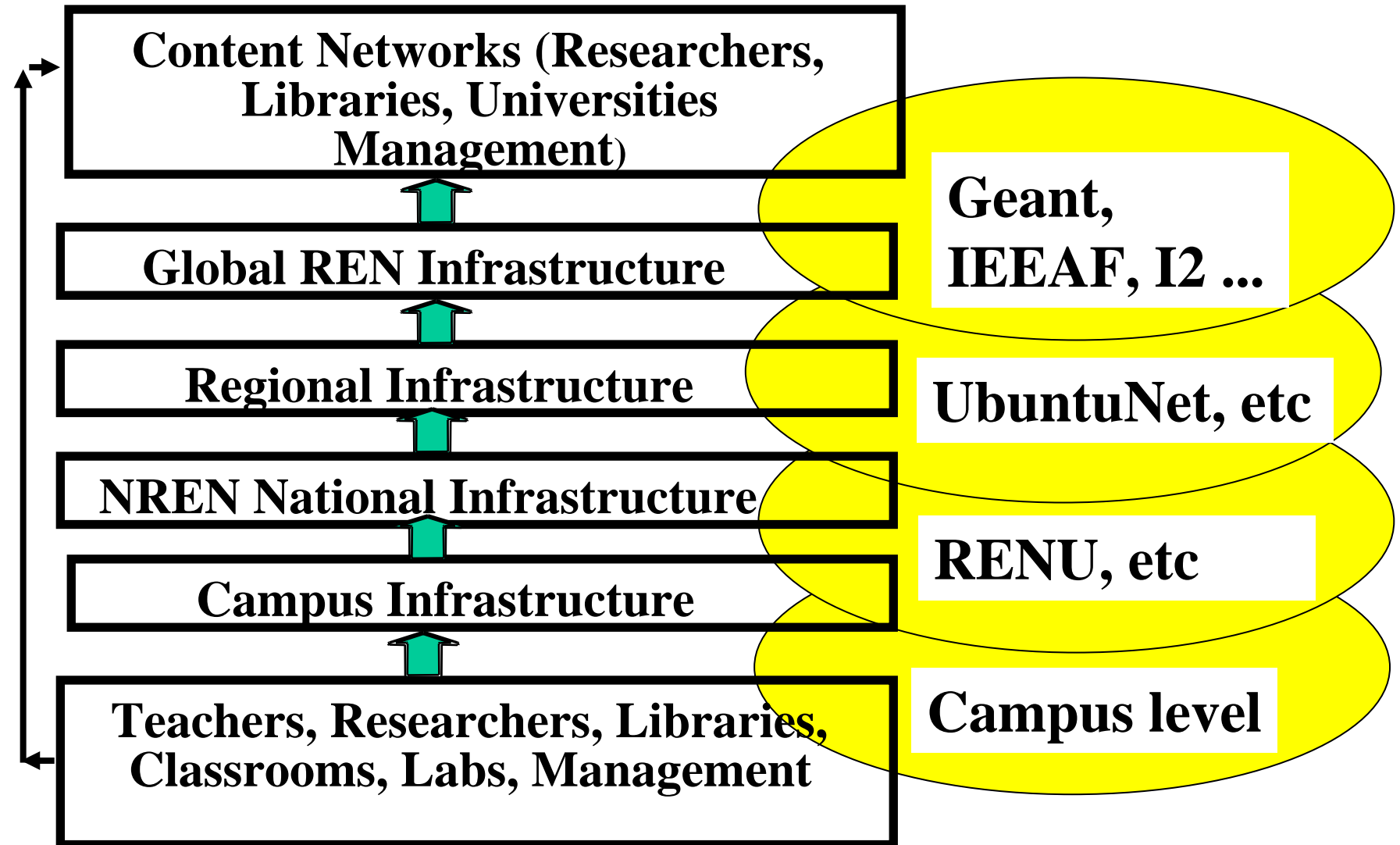
# UbuntuNet Alliance



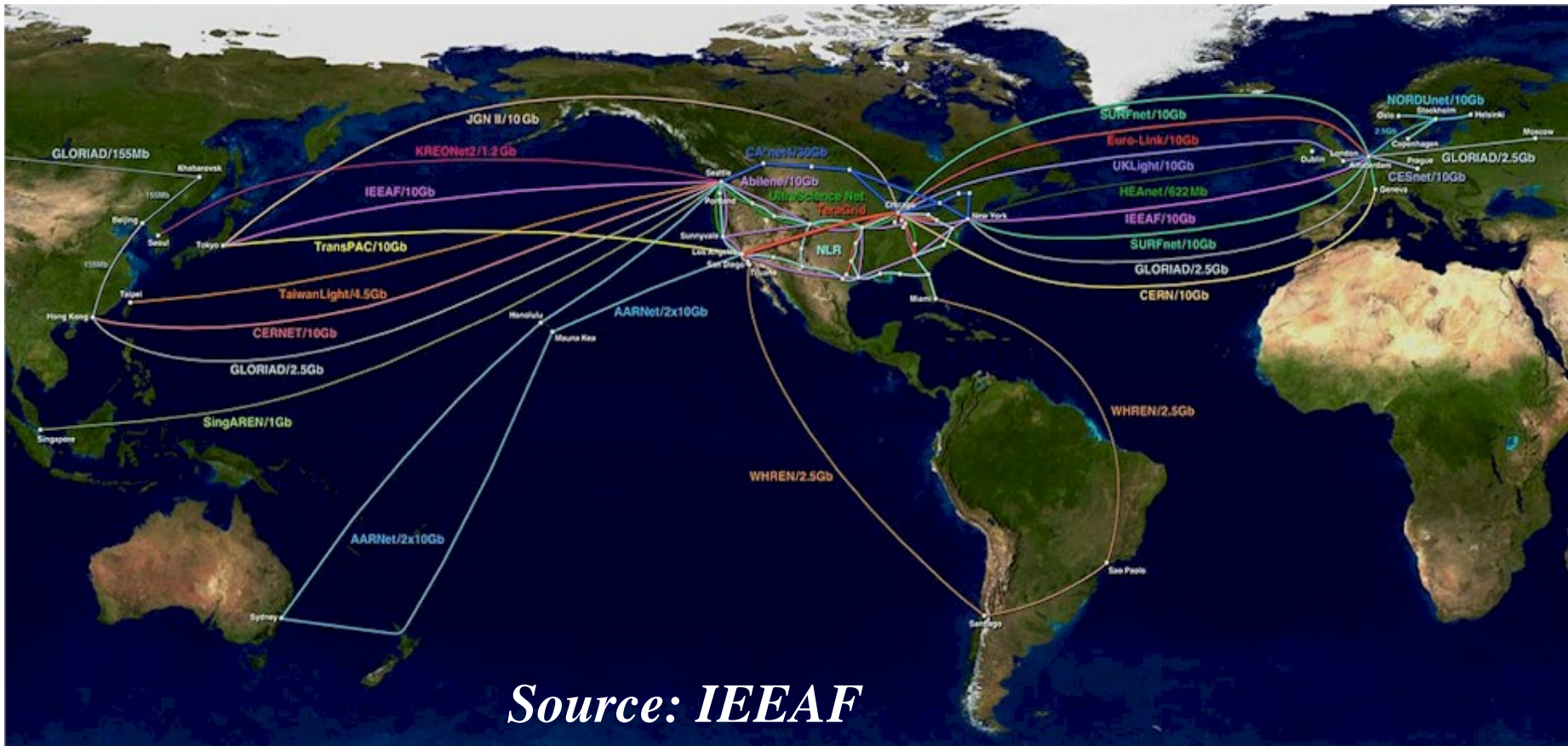
# Our thesis..

- *“Improved and affordable regional and international connectivity will enable African researchers to generate a proportionate amount of intellectual property goods to achieve parity with the rest of the world”*
- *Lemma: “World class connectivity will cause a reverse brain drain to Africa”*

# *We fill a networking gap..*



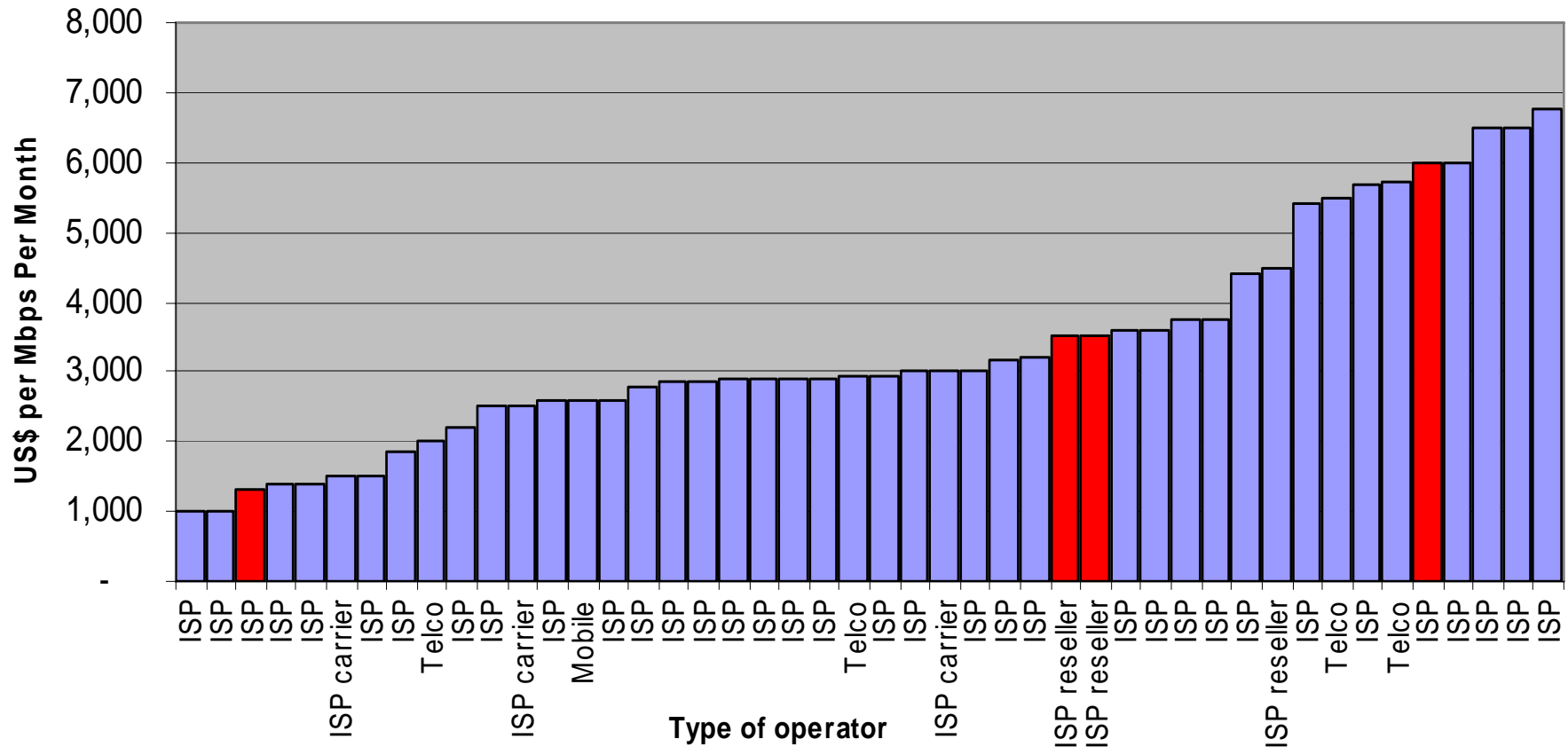
*Reality - Africa remains isolated from dedicated  
R&E capacity  
(2004) – still obtains apart from the Med. Sea.*



# *Internet access costs remain incredibly high*

## *(Cost of VSAT access, 2006)*

Price per Mb, ranked in ascending order



Source: Balancing Act African Satellite Markets Report 2006

# *There is still a lot to do..*

Formal REN, advanced network and sufficient bandwidth: **NONE**



Formal REN and underlying operational infrastructure: **Kenya, South Africa, Sudan**



Formal REN but no underlying operational infrastructure: **Rwanda, Tanzania, Zambia, DRC, Uganda, Malawi, Mozambique**



REN in formation: **Botswana, Swaziland, Lesotho, Ethiopia, Namibia, Somalia, Eritrea**



# Challenge 1: Africa is Huge!

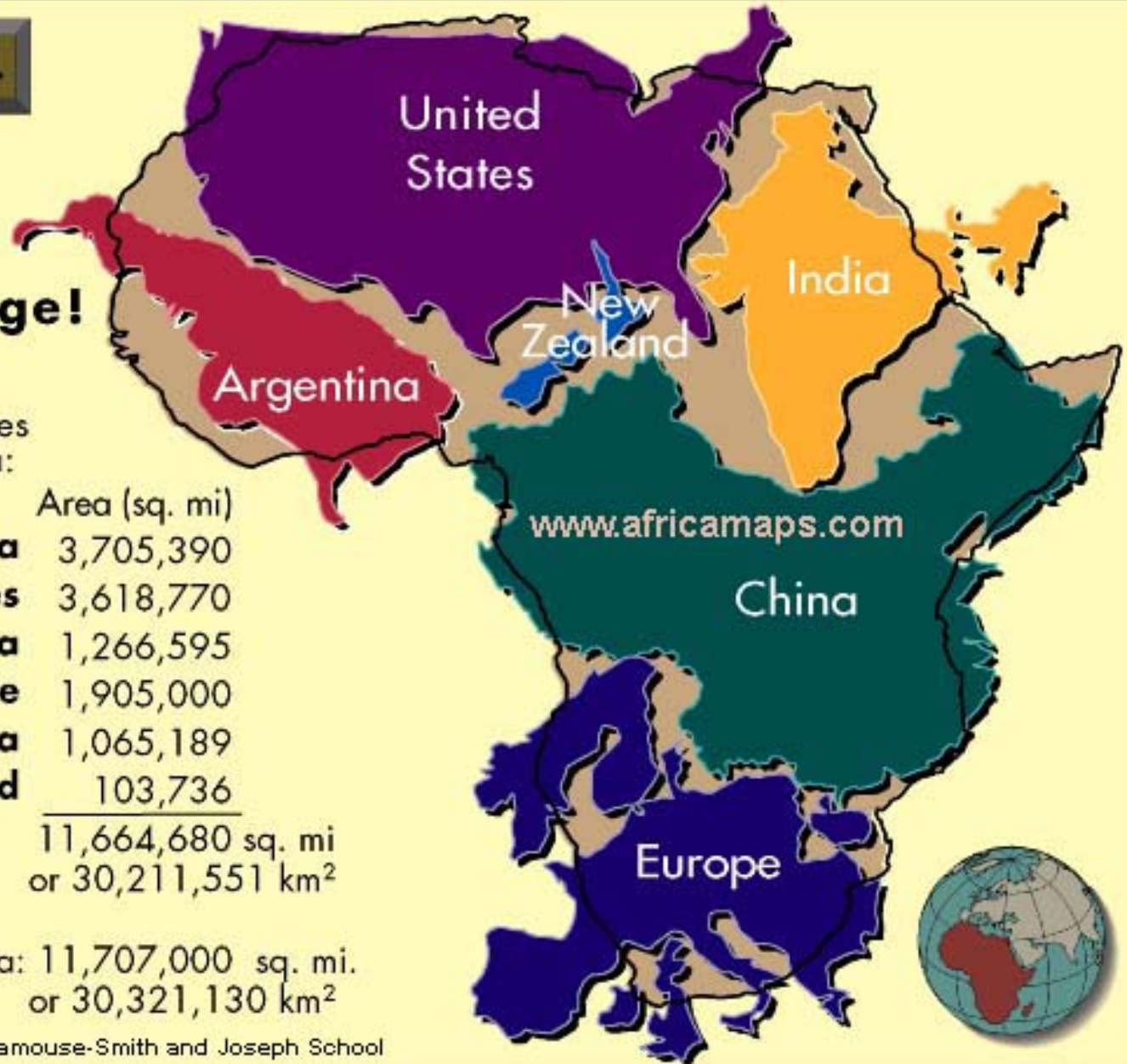
To the next map...

## Africa is Huge!

The following countries  
could fit within Africa:

	Area (sq. mi)
<b>China</b>	3,705,390
<b>United States</b>	3,618,770
<b>India</b>	1,266,595
<b>Europe</b>	1,905,000
<b>Argentina</b>	1,065,189
<b>New Zealand</b>	103,736
	<hr/>
	11,664,680 sq. mi. or 30,211,551 km <sup>2</sup>

Africa's area: 11,707,000 sq. mi.  
or 30,321,130 km<sup>2</sup>

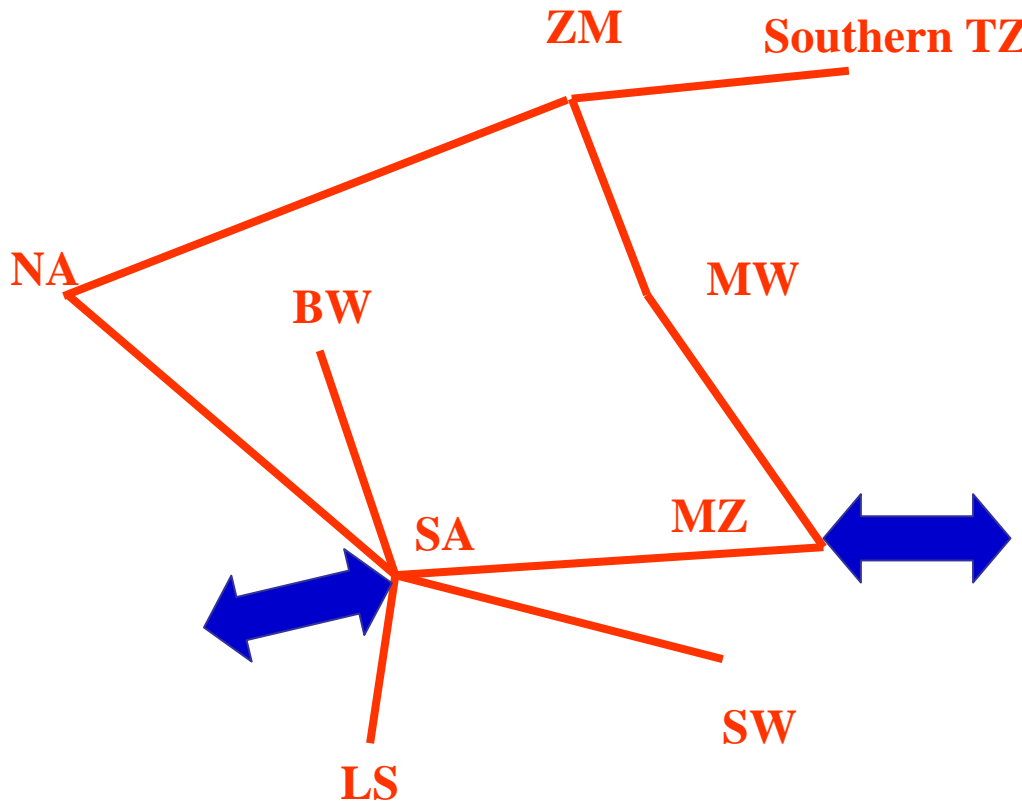




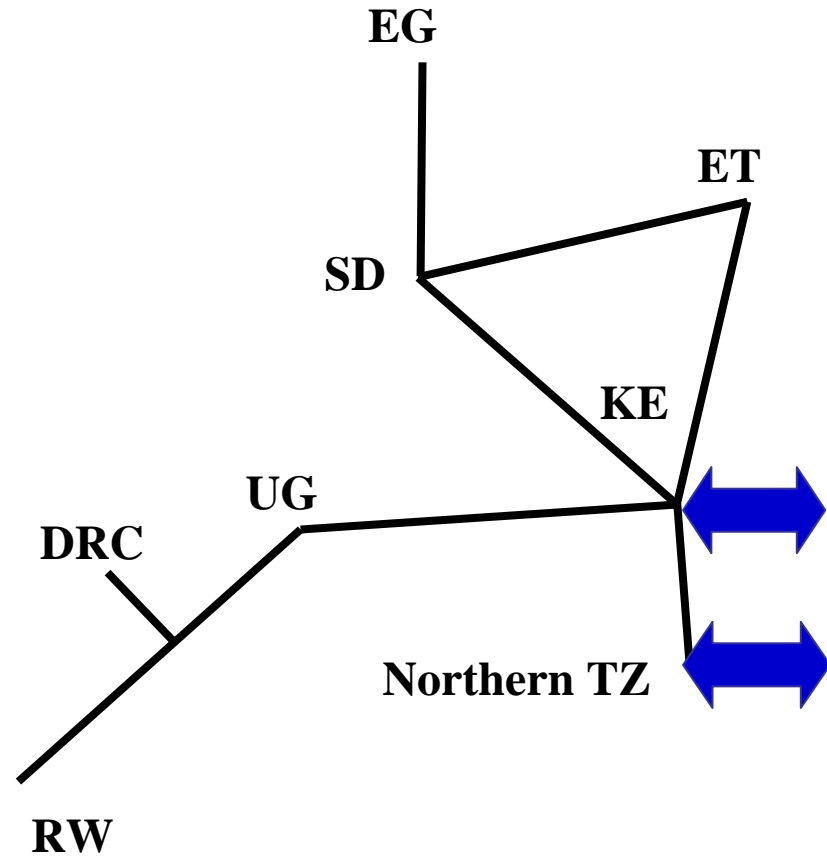
# Addressing challenges (1)

- *A huge continent: Recognising the need to work through partnerships in a mutually supportive environment, based on common architecture and/or interface standards; & Cluster approach; The Association of African Universities is a key continental policy level partner.*

# *South and East Clusters*



**South Cluster**



**East Cluster**

## Addressing challenges (2)

- *Disabling regulation:* **engagement of national and regional administrations, making a research-based case for liberalisation, and for special consideration for research and education networking as a development stimulant**

# Addressing Challenges (3)

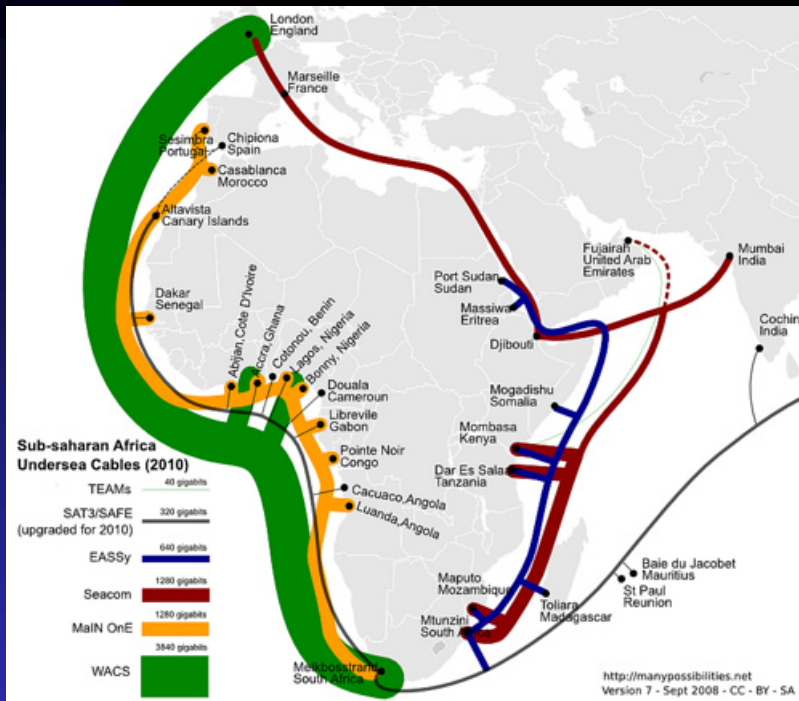
- *Expertise scarcity:*
  - **Share expertise (communities of practice)**
  - **Work with organisations like Afnog, and offer internships to address capacity deficits;**
  - **Create a network engineering group**
  - **Guide universities on improved curricula**

## Addressing challenges (4)

- **Cost of Fibre buy-in:**
  - **Seek donation of IRUS where possible on upcoming fibre (working with IEEAF which has donated 10Gb capacity on Seacom to the Eastern Cluster)**
  - **Secure IRUs at concessionary rates (TENET has done this on Seacom for the Southern Cluster)**



# Opportunity: Submarine cable initiatives



Map: Thanks to Steve Song.  
<http://www.manypossibilities.net>

Legend	Cable
	SAT-3 (WASC-SAFE) 2003. Operator Club
	SEACOM (E. Africa to London) 2009. Investors. Open access.
	TEAMS (Mombasa to Fujairah) 2009. Kenyan Govt.
	EASSy (E. Africa to Port Sudan) 2010. Operator consortium
	WACS (Cape Town to London) 2010. Operator consortium
	MaIN OnE (W. Africa to Portugal) 2010. Investors. Open access Phase 2: Luanda, Cape Town

## Addressing challenge (4)

- *Isolation of Africa:* **We urge a new mindset: “bringing the world to Africa”. The message – “Come and meet us at the cable landing points in Africa – It is an investment. Not only are you better able to afford it, we shall all benefit”**

# Addressing challenges (5)

- **Limited NREN Activity:**
  - **Promote awareness of benefits of REN activities**
  - **Seek contact in all countries in each region to start NRENS and to become part of the regional RENs**
  - **Organise and/or participate in events in countries with emerging NRENS**
  - **Work with continental and regional organisations (AAU, E-Africa Commission, Nigerian ICT Forum, etc)**

## *Addressing challenges (5)*

- *Limited funding for NRENs:*
  - **Support lobbying and advocacy at national level to increase public funding for the growth of connectivity and NRENs (it is working)**
  - **Develop a clear business case and model that will create continuing relevance and withstand competition**
  - **Develop a clear master plan as a basis for engaging development partners (CORENA)**

# ***Appreciation to our supporters to-date***

- **IDRC and Connectivity Africa**
- **USAID**
- **IEEAF**
- **GEO/GMRE**
- **Cisco**
- **DANTE**
- **Open Society Institute**
- **Open Society Initiative for Southern Africa**
- **TENET's FRENIA (Fostering Research and Education Networking in Africa) Program, funded by The Andrew W Mellon Foundation.**
- **KTH (Sweden)**
- **University of Washington**



**Conclusion: We are creating the future of research and education networking..**

- **“We know that we have it in ourselves as Africans, to change all this [*the challenges we face*]. We must assert our will to do so. We must say there is no obstacle big enough to stop us from bringing about an African renaissance.”**

**– Nelson Mandela**

- ***Thank you***